

Amendments To The Drawings

An attached drawing sheet is a new drawing sheet that is labeled "New Sheet", and that contains new drawing Figures 7E and 7F.

New Figure 7E is identical to original Figure 7D, except that (1) reference numerals 42 and 90 have been repositioned within the figure, (2) a dummy structure 92 has been added diagrammatically in broken lines, and (3) a via 94 has been added diagrammatically in broken lines. The addition of diagrammatic representations of the dummy structure 92 and the via 94 are supported by the originally-filed disclosure, including paragraphs [0022], [0026] and [0027], and Claims 1, 2, 16 and 19.

New Figure 7F has left and right halves that are each effectively identical to Fig. 7E.

Attachment: New Sheet with Figures 7E and 7F (Drawing Sheet 8)

REMARKS

On January 2, 2008, the Patent Office issued a Notice of Allowance, accompanied by a Notice of Allowability (Form PTOL-37). Applicants acknowledge receipt of the Notice of Allowance and Notice of Allowability. This Rule 312 Amendment is being submitted (1) to document a telephone interview with the Examiner, and (2) to resolve a drawing objection raised in the Notice of Allowability.

Interview Summary

Examiner Lewis telephoned the undersigned on December 17, 2007. The Examiner questioned whether Claim 14 is accurate where it refers to "at least two of the one or more dummy structures".

The undersigned pointed out that the indicated claim language is actually part of a longer phrase reciting that "at least two of the one or more dummy structures from different metallurgy layers are thermally connected". This is basically referring to "at least two of the . . . dummy structures from different metallurgy layers". By way of example and not limitation, one way of interpreting the reference to "at least two of the . . . dummy structures" is that one metallurgy layer has one of the two recited dummy structures, and a different metallurgy layer has the other of the two recited dummy structures.

The undersigned also pointed out that the dummy structures were originally recited earlier in Claim 14 using the phrase "one or more dummy structures". For proper antecedent basis, the subsequent phrase identified by the Examiner needed to refer back to them as "the one or more dummy structures", thus resulting in the reference to "at least two of the one or more dummy structures". Although at first glance this language appears slightly awkward, it nevertheless is technically accurate.

Drawing Amendment

In the Notice of Allowability (Form PTOL-37), the Examiner raised a drawing objection, and set forth a requirement for a corrected drawing. In more detail, the Examiner raised an objection under 37 C.F.R. §1.83(a), indicating that the original drawings fail to show the following subject matter recited in the allowed claims:

1. At least two of one or more dummy structures from different metallurgy layers are thermally connected. (Note - The Examiner referred to Claim 1, but Claim 1 has been canceled. It is assumed that the Examiner actually meant to refer to Claim 14).
2. One or more dielectric layers disposed between one or more metallurgy layers. (Note - The Examiner referred to Claim 1, but Claim 1 has been canceled. It is assumed that the Examiner actually meant to refer to Claim 14. In addition, the original drawings actually do show this subject matter. See dielectric layers 86, 88 and 90 in original Figure 7D, and the discussion of a further, not-illustrated metallurgy layer in paragraph [0026] of the original text).
3. One or more dummy metal structures on a first metallurgy layer are connected to one or more dummy metal structures on a second metallurgy layer through vias. (For example in Claim 19).

Applicants are proposing the addition of a new drawing sheet that contains new Figures 7E and 7F.

New Figure 7E is identical to original Figure 7D, except that (1) reference numerals 42 and 90 have been repositioned within the figure, (2) a dummy structure 92 has been added diagrammatically in broken lines, and (3) a via 94 has been added diagrammatically in broken lines. The addition of diagrammatic representations of the dummy structure 92 and the via 94 are supported by the originally-filed disclosure, including paragraphs [0022], [0026] and [0027], and

including Claims 1, 2, 16 and 19. Figure 7E has been prepared to avoid the introduction of any new matter.

New Figure 7F has left and right halves that are each effectively identical to Fig. 7E. Figure 7F has been prepared in this manner to avoid the introduction of any new matter.

With respect to resolution of the Examiner's objections, the following explains how new Figures 7E and 7F depict the claimed subject matter identified by the Examiner. (This is provided by way of example, and is not intended to imply any limitation to the scope of any claim).

1. New Figures 7E and 7F each show two dummy structures 42 and 92 from different metallurgy layers that are thermally connected by a via 94.
2. As noted above, original Figure 7D already shows multiple dielectric layers 86, 88 and 90 disposed between different metallurgy layers (which respectively include 42 and 92). In addition, new Figures 7E and 7F each show multiple dielectric layers 86, 88 and 90 disposed between different metallurgy layers (which respectively include 42 and 92).
3. New Figure 7F shows two dummy metal structures 42 in a first metallurgy layer that are respectively connected to two dummy metal structures 92 in a second metallurgy layer by respective vias 94.

In view of the foregoing, it is respectfully submitted that new Figures 7E and 7F resolve the drawing objection in the Notice of Allowability, and do not introduce any new matter into the disclosure. Accordingly, it is respectfully requested that new drawing figures 7E and 7F be approved and entered into the present application, and that the drawing objection be formally withdrawn.

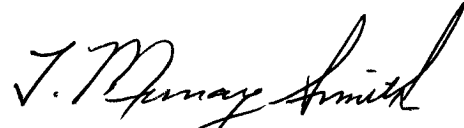
Appl. No. 10/801,475
Reply to Notice dated January 2, 2008

Attorney Docket No. 2003-1410 / 24061.193
Customer No. 42717

Conclusion

If there are any remaining questions in association with this application, please telephone the undersigned attorney at 972-739-8647.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "T. Murray Smith", with a stylized flourish at the end.

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Date: January 17, 2008

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Enclosures: New Drawing Sheet (Sheet 8)

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